To: Pellegrini, Janet[pellegrini.janet@epa.gov]
From: Janet Pellegrini
Sent: Wed 10/30/2013 3:00:56 PM
Subject: Fw: AEC Bennoc Information

----- Forwarded by Janet Pellegrini/R5/USEPA/US on 10/30/2013 10:00 AM -----

From: Peter Jackson/R5/USEPA/US
To: Jean Chruscicki/R5/USEPA/US@EPA,
Cc: Janet Pellegrini/R5/USEPA/US@EPA
Date: 01/17/2013 02:59 PM
Subject: Re: Fw: AEC Bennoc Information

OK, thanks Jean. I guess we can conclude it is not impaired, nor are they likely to change their minds. But I think NPDES can still bring up the point that there is a problem with high TDS in Piney Creek, with numerous exceedences noted by Ohio EPA. Ohio acknowledges that this is having a negative impact on the macroinvertebrate community....

Pete

Jean Chruscicki---01/17/2013 02:03:29 PM---Now we get into another discussion. I will try to simplify. USEPA likes independent applicability o

From: Jean Chruscicki/R5/USEPA/US
To: Peter Jackson/R5/USEPA/US@EPA,
Cc: Janet Pellegrini/R5/USEPA/US@EPA
Date: 01/17/2013 02:03 PM
Subject: Re: Fw: AEC Bennoc Information

Now we get into another discussion. I will try to simplify.
USEPA likes independent applicability of standards, meaning if only one parameter exceeds standards, the water is impaired.
USEPA does not like the weight of evidence approach, which means if a water is only impaired in one category and not others, it will not be considered impaired.
OEPA often uses the weight of evidence where the chemistry may exceed but the biota are good. USEPA accepts this FOR OHIO (not routinely) because Ohio uses three parameters to measure the biological integrity, the ICI (macros), IBI and MiWB (fish).
OEPA also uses it for stream classification, not just impairment determination.

Peter, your comment - "They could probably list it based on the TDS exceedences?" won't happen because the fish look good. Years ago biologists tried to get reclassification and stalled then was withdrawn, and think there is a smaller chance now.

Peter Jackson---01/17/2013 12:10:28 PM---The wording that begs the question of why no impairment

Jean is "exceedence". Ohio uses that word a

From: Peter Jackson/R5/USEPA/US
To: Jean Chruscicki/R5/USEPA/US@EPA,
Cc: Janet Pellegrini/R5/USEPA/US@EPA
Date: 01/17/2013 12:10 PM
Subject: Re: Fw: AEC Bennoc Information

The wording that begs the question of why no impairment Jean is "exceedence". Ohio uses that word and they show Piney Creek as having TDS "exceedences" in a table of exceedences. This is an oddball situation given existing use (CWH), WWH designation, EWH fish but adversely impacted macros. They could probably list it based on the TDS exceedences? It will be interesting to see what Jean finds out from Ohio...

Pete

Jean Chruscicki---01/17/2013 11:20:27 AM---Just as one has to be familiar with the implication of certain wording (such as the impaired waters

From: Jean Chruscicki/R5/USEPA/US
To: Janet Pellegrini/R5/USEPA/US@EPA,
Cc: Peter Jackson/R5/USEPA/US@EPA
Date: 01/17/2013 11:20 AM
Subject: Re: Fw: AEC Bennoc Information

Just as one has to be familiar with the implication of certain wording (such as the impaired waters list isn't only for impaired waters), the same applies here. The statement ..the macroinvertebrates are adversely impacted by the high concentration of TDS, conductivity and metals from the AEC mine discharge is *not* saying that the macros are "impaired" so the statement is not as strong as we would read it. So no listing. Secondly, the TDS may be high but since it is chemistry data and not supported by the QHEI or bio indicators, if the fish are OK - the waters are OK. So no listing. Related to the cows' access to drinking, there was an old ag water supply use that is not one of the designated uses currently utilized by OEPA. If you want to talk more let me know (regarding EW or WW use, too much to discuss here) and I think you know those issues already.
thanks
Jean

Janet Pellegrini---01/17/2013 10:55:48 AM---Pete I just got back from having Jean walk me thru all this, its more complicated than usual

From: Janet Pellegrini/R5/USEPA/US
To: Peter Jackson/R5/USEPA/US@EPA,
Cc: Jean Chruscicki/R5/USEPA/US@EPA
Date: 01/17/2013 10:55 AM
Subject: Re: Fw: AEC Bennoc Information

Pete

I just got back from having Jean walk me thru all this, its more complicated than usual
Kevin will be interested in what OEPA says back to Jean

Peter Jackson---01/17/2013 10:33:55 AM---Thanks Jean! So Janet, it appears from Jean's clarification that Piney Creek is not on the Category

From: Peter Jackson/R5/USEPA/US
To: Jean Chruscicki/R5/USEPA/US@EPA,
Cc: Janet Pellegrini/R5/USEPA/US@EPA
Date: 01/17/2013 10:33 AM
Subject: Re: Fw: AEC Bennoc Information

Thanks Jean! So Janet, it appears from Jean's clarification that Piney Creek is not on the Category 5 list f impaired waters, but the question that Jean will run by Ohio is why Piney is not listed if they show exceedences in their water quality report for the Captina Creek watershed? It could be theye did not have sufficient data to list it as impaired, or.....?

Pete

Jean Chruscicki---01/17/2013 10:20:48 AM---FYI Dave I am not sending this to you anymore FYI Janet I just talked to Peter and clarified, and th

From: Jean Chruscicki/R5/USEPA/US
To: Peter Jackson/R5/USEPA/US@EPA,
Cc: Janet Pellegrini/R5/USEPA/US@EPA, David Werbach/R5/USEPA/US@EPA
Date: 01/17/2013 10:20 AM
Subject: Re: Fw: AEC Bennoc Information

FYI Dave I am not sending this to you anymore
FYI Janet I just talked to Peter and clarified, and the heading of the table "Section 303(d) List of Prioritized Impaired Waters (Category 5)" can be misleading because there are also other benign categories. As you can see 1 and 3i are not impaired or unknown.
FYI I will chat with Ohio if there is any more info and report back
Jean

Category definitions for the 2012 Integrated Report and 303(d) list

Category[1]		Subcategory	
0	No waters currently utilized for water supply		
1	Use attaining	h	Historical data
		t	TMDL complete; AU is now attaining water quality standards
		x	Retained from 2008 IR
2	Not applicable in Ohio system		
3	Use attainment unknown	h	Historical data
		i	Insufficient data
		t	TMDL complete; included in TMDL(s) for other units, but there may be no or not enough data to assess this unit
		x	Retained from 2008 IR
4	Impaired; TMDL not needed	A	TMDL complete
		B	Other required control measures will result in attainment of use
		C	Not a pollutant
		h	Historical data
		n	Natural causes and sources
		x	Retained from 2008 IR
5	Impaired; TMDL needed	M	Mercury
		h	Historical data
		x	Retained from 2008 IR

[1] Shading indicates categories defined by U.S. EPA; additional categories and subcategories are defined by Ohio EPA.

Peter Jackson---01/17/2013 07:49:54 AM---Jean, it was on a list in the 2012 IR in section L4 which is titled, "Section 303(d) List of Priori

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Cc: Janet Pellegrini/R5/USEPA/US@EPA, David Werbach/R5/USEPA/US@EPA
Date: 01/17/2013 07:49 AM
Subject: Re: Fw: AEC Bennoc Information

Jean, it was on a list in the 2012 IR in section L4 which is titled, "Section 303(d) List of Prioritized Impaired Waters (Category 5)". The columns next to Piney Creek do show other numbers than 5 but I think those numbers represent rankings for prioritization of TMDL development, and not listing categories. Let us know if you agree or disagree with this. Thanks!

Pete

http://www.epa.state.oh.us/dsw/tmdl/OhioIntegratedReport.aspx

Jean Chruscicki---01/16/2013 05:08:55 PM--- I did not see Piney Creek-Captina listed as defined by our program as being in category 5. Categori

From: Jean Chruscicki/R5/USEPA/US
To: Janet Pellegrini/R5/USEPA/US@EPA,
Cc: David Werbach/R5/USEPA/US@EPA, Peter Jackson/R5/USEPA/US@EPA
Date: 01/16/2013 05:08 PM
Subject: Re: Fw: AEC Bennoc Information

I did not see Piney Creek-Captina listed as defined by our program as being in category 5.
Categories 3i (use attainment unknown), 1 (use attaining), and 1(use attaining), are for human health, recreation and ALU, respectively for Piney-Captina, meaning "unknown if it is impaired" or it "is attaining". Listing for "TMDL needed" should have a 5 in the column. The header of the columns is what the location is listed for. Did you see it as listed somewhere stated exactly as a category "5"?

I saw the conflicting information as well regarding full attainment or impairment. Want me to ask OEPA? It may hinge on some policy issue of which I am not aware, regarding uses, where sampling occurred, or sampling may have come too late to make it on the 2012 list but will be on the 2014.

Jean

Janet Pellegrini---01/16/2013 03:05:00 PM---Jean, See Pete Jackson's insights (yellow highlighted #5) re a WQ report on Captina Creek/ Piney Cre

From: Janet Pellegrini/R5/USEPA/US
To: Jean Chruscicki/R5/USEPA/US@EPA,
Cc: David Werbach/R5/USEPA/US@EPA
Date: 01/16/2013 03:05 PM
Subject: Fw: AEC Bennoc Information

Jean,
See Pete Jackson's insights (yellow highlighted #5) re a WQ report on Captina Creek/ Piney Creek
Jp

----- Forwarded by Janet Pellegrini/R5/USEPA/US on 01/16/2013 03:03 PM -----

From: Peter Jackson/R5/USEPA/US
To: Janet Pellegrini/R5/USEPA/US@EPA, Robert Pepin/R5/USEPA/US@EPA, Kevin Pierard/R5/USEPA/US@EPA, Patrick

Kuefler/R5/USEPA/US@EPA,
Date: 01/16/2013 11:21 AM
Subject: AEC Bennoc Information

I finally read through the 9/15/12 document from AEC. Sorry I was not better prepared yesterday. Here are a few observations:
1) OEPA asked AEC to use background WQ inputs for Piney Creek, and company did that and acknowledged that "the true receiving stream is Piney Creek".
2) I downloaded the data for Piney Creek from OEPA's website (was the same as what I had used previously from the 2009 water quality report for the Captina watershed but two newer values from early 2012 were included in the online dataset). AEC and I used the same formulas for sulfate and chloride and also the exact same inputs for hardness and chloride (for the sulfate derivation) and for hardness and sulfate (for the chloride derivation). So, using the exact same formulas and the exact same inputs as AEC, you would think I would get the exact same results, right? I did get the exact same results for chloride but got vastly different results for sulfate. For sulfate acute OMZM I got 1684 and they got 6942! This is over four times large than my number. The only way they could come up with a number this large after using the same formula and inputs is to change the end value to a number that they found to their liking. This is a problem. They say that sulfate comprises 78% of the TDS composition, so it is important that we get the sulfate number right.
3) The 1.3 multiplier for deriving IMZM values from OMZM values raises a few questions also. This assumes that we agree that it is appropriate to allow for some mixing in the tribs. With a 7Q10 of 0.32 cfs I would think that a mixing allowance would either be somewhere between negligible and minimal. Maybe an allowance for mixing is based on an assumption that they will not discharge during low flow conditions (which they do indicate in this document). But I still would like to know how they came up with the 1.3 Unless you guys have a better understanding than I do of how they came up with 1.3, we should ask Ohio how they (or was it AEC?) came up with the 1.3.
4) As mentioned, they say they will not discharge during low flow conditions because discharge only occurs when there is runoff. Great, I assume this can be included in the permit then?
5) The impairment issue is curious and bears more digging. Janet and I both saw Piney Creek listed on the 303(d) list, but that list does not specify what the impairment is for. So I went to the Captina Creek water quality report. It shows that Piney Creek is in full attainment with WQS as far as biology is concerned, but it also documents multiple exceedences of Piney Creek for TDS below the AEC discharge. So I assume the impairment is with TDS. No other parameter is listed for exceedences at that location.

I also looked through the Captina water quality report some more. Here is what it says about Piney Creek: "...the macroinvertebrates are adversely impacted by the high concentration of TDS, conductivity and metals from the AEC mine discharge at river mile 2.8. Mayflies are very sensitive to TDS and are almost completely absent from Piney Creek downstream from the mine discharge. It is recommended that AEC provide better treatment of their discharge to remove the high TDS or to avoid discharging during low flow conditions when the TDS concentrations are exacerbated by lack of dilution."

Hope this helps.

Pete